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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,062	07/09/2003	Hui Shi	81674-304847	9533

7590

04/02/2004

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EXAMINER

JEANGLAUDE, JEAN BRUNER

ART UNIT

PAPER NUMBER

2819

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,062

Applicant(s)

SHI, HUI

Examiner

Jean B Jeanglaude

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-17 is/are rejected.
- 7) ☒ Claim(s) 5 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07-09-03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Insert on page 1 as subtitle "Cross Reference To Related Applications"

Insert under the subtitle " This is a continuation in part of application number 10/074,200, filed on February 12, 2002, U.S. Pat. No. 6,614,372.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 4, 6 – 10, 19 - 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weder (US Patent Number 5,959,559) in view of Jackson et al. (US Patent Number 5,243,347).

3. Regarding claims 1, 2, 6, 7, 10, Weder discloses a parallel to serial converter and method (fig. 1) that comprises a voltage output device (output hold element) to produce a voltage representative of a value of a bit in a serial bit stream converted from a parallel bit (note the serial output in fig. 1); a number of selection devices (EL/SQ1, fig. 1) by way of a selecting unit (SR) accepts as input n number of parallel bits (A1,, Am, fig. 1) wherein an active selection device accepts as input a current (CS) and outputs an active selection device current directly to a corresponding current source and non active selection devices are inactive at one time (col 2, lines 19 – 56). Weder does not specifically disclose a parallel to serial converter that comprises a current steering device. However, Jackson et al. teaches the desire of a system (fig. 1) that comprises a

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steering logic (30, 31,), switch 53 is made conductive and all the current provided to node 42 by the steering logic portion which provides steering current (col 2, lines 33 – 35; 48 – 61). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Weder with that of Jackson et al. in order to convert data.

4. Regarding claims 3, 4, 8, 9, Weder discloses the limitations as discussed above except that Weder did not set N to eight and ten. However, one skilled in the art would recognize that setting a variable, such as N, is a matter of choice in design. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that Weder would perform the same function as the claimed invention since one ordinary skill in the art would understand that setting a variable would be a matter of choice in design.

5. Claims 11 - 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weder (US Patent Number 5,959,559) in view of Jackson et al. (US Patent Number 5,243,347) and Cassidy et al. (US patent Number 5,978,419).

6. Regarding claims 11 - 14, Weder discloses a parallel to serial converter and method (fig. 1) that comprises a voltage output device (output hold element) to produce a voltage representative of a value of a bit in a serial bit stream converted from a parallel bit (note the serial output in fig. 1); a number of selection devices (EL/SQ1, fig. 1) by way of a selecting unit (SR) accepts as input n number of parallel bits (A1, ..., Am, fig. 1) wherein an active selection device accepts as input a current (CS) and outputs an active selection device current directly to a corresponding current source and non active

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selection devices are inactive at one time (col 2, lines 19 – 56). Weder does not specifically disclose a parallel to serial converter that comprises a current steering device. However, Jackson et al. teaches the desire of a system (fig. 1) that comprises a steering logic (30, 31,), switch 53 is made conductive and all the current provided to node 42 by the steering logic portion which provides steering current (col 2, lines 33 – 35; 48 – 61). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Weder with that of Jackson et al. in order to convert data.

7. Moreover, both Weder and Jackson et al disclose the limitations as discussed above except the transmitter device that comprises an output buffer which receives a serial bit in the serial bit data stream from the P/S and to transmit a differential data stream over a transmission line. However, Cassiday et al. teaches the desire of a transmitter device (fig. 3) that comprises an output buffer (51, fig. 3) receives a serial bit in the serial bit data stream from the P/S and to transmit a differential data stream over a transmission line (abstract). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Weder and Jackson et al.'s system with that of Cassiday et al. in order to transfer data between a transmitter and a receiver in a communication system.

8. Regarding claims 15, 16 Weder discloses the limitations as discussed above except that Weder did not set N to eight and ten. However, one skilled in the art would recognize that setting a variable, such as N, is a matter of choice in design. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

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made that Weder would perform the same function as the claimed invention since one ordinary skill in the art would understand that setting a variable would be a matter of choice in design.

9. Regarding claim 17, as noted in page 1, first paragraph, the applicant admits that 10 Gigabit per second media independent interface to 10 Gps attachment unit interface is well known in the art.

Allowable Subject Matter

10. Claims 5, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. A reason for allowing claims 5, 18 will be provided in the next office action.

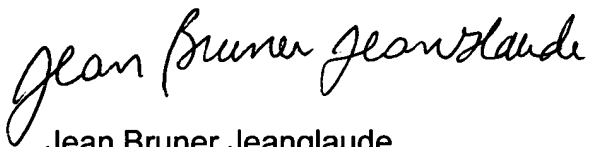
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean Bruner Jeanglaude
March 25, 2004

JEAN JEANGLAUE
PRIMARY EXAMINER